Claims

1. A method for the therapeutic or prophylactic treatment of subjects suffering from or being subject to a risk of imbalanced colon fermentation said method comprising administering slowly fermented complex oligomeric or polymeric carbohydrate(s) to said subject in an amount which is effective in sustaining and controlling the fermentation throughout the colon of said subject.

2. The method according to claim 1, wherein said carbohydrate is a sugar polymer.

3. The method according to claim 2, wherein said sugar polymer is polydextrose.

4. The method according to claim 1, wherein said carbohydrate is administered in an amount which is effective in preventing the accumulation of lactic acid throughout the colon.

5. The method according to claim 1, wherein said carbohydrate is administered in an amount which is effective in reducing the pH throughout the colon without accumulation of lactic acid.

6. The method of according to any one of claims 1 to 5, wherein said carbohydrate is administered in an amount which is additionally effective in reducing the putrefactive fermentation throughout the colon.

7. The method of according to any one of claims 1 to 6, wherein said carbohydrate is administered in an amount which is additionally effective in increasing the amount of butyrate throughout the colon.

8. The method according to any one of claims 1 to 3, wherein said carbohydrate is administered in an amount which is effective in increasing the tolerance of probiotic lactic acid bacteria.

9. The method according to any one of claims 1 to 3, wherein said carbohydrate is administered in an amount which is effective in facilitating the management of lactose intolerance.

10. The method according to any one of claims 1 to 3, wherein said carbohydrate is administered in an amount which is effective in facilitating the management of food allergy.

11. The method according to any one of claims 1 to 3, wherein said carbohydrate is administered in an amount which is effective in facilitating the management of celiac disease.

12. The method according to any one of claims 1 to 3, wherein said carbohydrate is administered in an amount which is effective in reducing the risk of inflammatory diseases in the colon.

13. The method according to any one of claims 1 to 3, wherein said carbohydrate is administered in an amount which is additionally effective in balancing or normalizing the microbial community throughout the colon.

14. The method according to any one of claim 1 to 3, wherein said carbohydrate is administered in combination with at least one nutritionally, nutraceutically and/or pharmacologically acceptable carrier and/or vehicle.

15. The method according to claim 14, wherein said carrier and/or vehicle is a polyol.

16. The method according to claim 15, wherein said carbohydrate and said polyol are administered in synergistic effective amounts to prevent the accumulation of lactic acid throughout the colon.

17. The method according to claim 15 or 16, wherein said polyol is selected from the group comprising lactitol, xylitol, maltitol, sorbitol, isomalt.

18. The method according to claim 17, wherein said polyol is lactitol.

19. The method according to any one of claims 1 to 18, wherein said carbohydrate is administered to a subject selected from the group consisting of human beings, pet animals, farm animals, laboratory animals, zoo animals.

20. The method according to claim 19, wherein said subject is selected from the group consisting of a young mammal at the age of weaning, a young mammal suffering from milk crust, a mammal treated with antibiotics, a mammal having sensitivity to lactose, a mammal suffering from celiac disease, a mammal suffering from food allergy and an aged mammal.

21. The method according to any one of claims 1 to 20, wherein said carbohydrate is incorporated into a composition to be administered orally.

22. The method according to any of the claims 1 to 21, wherein said composition is prepared in the form of an orally administrable preparation selected from the group comprising a dry, semidry or liquid food product, a tablet, a pill, a chewing gum or tablet, a powder, a spray, a syrup, a sugar substitute, a candy or sweet, a dairy product, a frozen dairy product, a meat product, a health drink, a baby food, a pet food, an animal feed, and the like.

23. The method according to claim 22, wherein said preparation is a sour food or feed product, preferably a sour milk product.

24. The method according to claim 23, wherein said preparation is a sour milk product

25. The method according to claim 22, wherein said preparation is selected from the group consisting of yogurt, baby's milk formula, sour milk, curdled milk, dry milk and crout.

26. The method according to claim 3, wherein said polydextrose is hydrogenated polydextrose.

27. The method according to claim 3, wherein said polydextrose is purified.

28. The method according to claim 26 or 27, wherein said polydextrose is selected from the group consisting of non-hydrogenated polydextrose, hydrogenated polydextrose, andnon-hydrogenated polydextrose or hydrogenated polydextrose, which has been subject to purification and a mixture thereof.

29. The method according to claim 1, wherein said carbohydrate selected from the group consisting of xanthan, alginate and a xylooligomer.

30. The method according to claim 15, wherein the weight ratio of polyol to polydextrose ranges from about 1:10 to 10:1, preferably from 1:5 to about 5:1.

31. The method according to claim 21 or 22, wherein the carbohydrate is added to a food product in effective amounts to sustain and control the fermentation throughout the colon of a mammal, and the food containing the same is administered to the mammal.

32. The method according to claim 21, wherein the carbohydrate and polyol are added to a food product in synergistic effective amounts to prevent the accumulation of lactic acid throughout the colon of a mammal, and the food containing the same is administered to the mammal.

33. The method according to claim 21, wherein the carbohydrate and polyol are added to a food product in synergistic effective amounts to reduce the putrefactive fermentation in the colon of a mammal, when the food containing the same is administered to the mammal.